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COORDINATION OF THE POLICIES AND ACTIVITIES OF THE SPECIALIZED AGENCIES AND OTHER BODIES OF THE UNITED NATIONS SYSTEM: IMPLEMENTATION OF THE AGREED CONCLUSIONS OF THE 1994 COORDINATION SEGMENT OF THE COUNCIL

Coordination in science and technology for development

Report of the Secretary-General

SUMMARY

In response to a request of the Economic and Social Council, the present report was prepared on implementation of the agreed conclusions 1994/1. Some progress has been made since 1994 in improving inter-agency coordination in science and technology for development. Focal points for science and technology have been designated in 26 major organizations and agencies of the United Nations system. The Inter-Agency Committee on Sustainable Development and the Consultative Committee on Programme and Operational Questions have discussed how best to deal with science and technology issues in their respective committees and the division of labour between them. At the regional and national levels, the role of the UNDP Resident Coordinator is being given increased attention in the coordination of science and technology activities.

Given the evolving nature of these activities, it is recommended that the Council review science and technology programmes periodically, with the view to providing specific guidance on coordination of science and technology for development.

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CONTENTS

		Paragraphs	Page
INTRODUCTION		1 - 4	3
I.	INTERGOVERNMENTAL COORDINATION	5 - 7	3
II.	INTER-AGENCY COORDINATION	8 - 31	4
	A. Division of labour between the Inter-Agency Committee on Sustainable Development and the Consultative Committee on Programme and Operational Questions	8 - 10	4
	B. Specific measures for inter-agency coordination	11 - 14	5
	C. Communications networks	15 - 20	6
	D. Regional and country-level coordination	21 - 27	7
	E. Coalition of resources/round tables	28 - 31	8
III.	AREAS OF FOCUS FOR INDIVIDUAL AGENCIES AND INTER-AGENCY COOPERATION	32 - 36	9
IV.	HIGH TECHNOLOGY/RESEARCH CENTRES AND REGIONAL CENTRES	37 - 42	10
V.	CONCLUSIONS	43 - 44	11

Annexes

I.	SCIENCE AND TECHNOLOGY FOCAL POINTS	13
II.	AREAS OF FOCUS IN PROMOTING SCIENCE AND TECHNOLOGY FOR DEVELOPMENT	15
III.	ILLUSTRATIVE AREAS FOR INTER-AGENCY COOPERATION	27
IV.	HIGHLY SPECIALIZED AND HIGH TECHNOLOGY CENTRES	32
V.	REGIONAL TECHNOLOGY CENTRES/NETWORKS	35

INTRODUCTION

1. "Science and technology for development" was one of the themes of the coordination segment of the Economic and Social Council in July 1994. The Council had before it a background document entitled "Division of labour and coordination within the United Nations system in the field of science and technology" (E/1994/70). In its agreed conclusions on coordination of the policies and activities of the specialized agencies and other bodies of the United Nations system related to science and technology for development, 1/ the Council requested the Secretary-General to submit a report on the implementation of the agreed conclusions to the Council at its substantive session in 1995.

2. The Council called for an effective and essential linkage of the implementation of Agenda 21 2/ and other international commitments, conventions and agreements with the agenda for development. It also recommended that the agenda should encompass recommendations on appropriate programmes and activities of the United Nations system in science and technology. Although the agenda for development had not been finalized, it was important to monitor the ongoing process of intergovernmental consultations to see how the science and technology issues were being developed and would be reflected in the agenda.

3. The Council referred to the Vienna Programme of Action on Science and Technology for Development, which was adopted in 1979, 2/ as a useful benchmark for the United Nations system in assessing (science and technology-related) programmes and enhancing coordination and policy development at the intergovernmental and inter-agency levels. It noted that Agenda 21 constituted a new instrument for revitalizing and coordinating the programmes and activities of the United Nations system in the field of science and technology.

4. The Council recognized that scientific and technological activities were deeply embedded in sectoral programmes. The promotion of science and technology required sector-specific interventions and complementary intersectoral approaches. The system of task managers adopted by the Inter-Agency Committee on Sustainable Development (IACSD) provided a model for linking sectoral and cross-sectoral issues and reinforcing strengths and complementarities of the agencies.

I. INTERGOVERNMENTAL COORDINATION

5. In a conscious effort to support the work of the Commission on Sustainable Development, the Commission on Science and Technology for Development, at its first session in 1993, established a Panel on Science and Technology for Integrated Land Management and requested it to prepare a contribution for the third session of the Commission on Sustainable Development. Within the context of the Panel, the United Nations Conference on Trade and Development (UNCTAD), the Department for Policy Coordination and Sustainable Development of the United Nations Secretariat, and the Food and Agriculture Organization of the United Nations (FAO) (Task Manager on chapter 10) worked closely with the Panel members to bring scientific and technological perspectives to the discussion of land management issues. The report of the Panel was submitted to and considered by

the Ad Hoc Intersessional Working Group on Sectoral Issues of the Commission on Sustainable Development, held in New York from 27 February to 3 March 1995.

6. The Commission on Science and Technology for Development will also contribute to the overall review of the implementation of Agenda 21 to be undertaken by the Commission on Sustainable Development in 1997, particularly with regard to chapters of Agenda 21 related to science and technology, such as chapter 16 on environmentally sound management of biotechnology; chapter 34 on transfer of environmentally sound technology, cooperation and capacity-building; and chapter 35 on science for sustainable development.

7. The proposed closer linkages between the Commission on Science and Technology for Development and the Trade and Development Board (TDB) are yet to be developed. The fact that both bodies are served by UNCTAD should facilitate future interactions.

II. INTER-AGENCY COORDINATION

A. Division of labour between the Inter-Agency Committee on Sustainable Development and the Consultative Committee on Programme and Operational Questions

8. Following the Council's approval of the agreed conclusions, coordination of science and technology was considered by both the Inter-Agency Committee on Sustainable Development (IACSD) and the Consultative Committee on Programme and Operational Questions (CCPOQ) at their respective fifth sessions in February 1995. IACSD suggested certain modalities to address:

(a) The respective roles of IACSD and CCPOQ on matters related to science and technology for development;

(b) The relationship between the Vienna Programme of Action, Agenda 21 and other relevant programmes for science and technology;

(c) Concrete proposals for specific follow-up action to the Council conclusions, including designated lead agencies for each.

The IACSD Chairman conveyed the suggestions to the Chairman of CCPOQ.

9. CCPOQ discussed its own role in coordinating science and technology, and it was agreed that there should be an informal consultation between the chairmen of the two committees. The respective secretariats of the two bodies have had such informal consultations and have agreed to exchange information on a regular basis.

10. The main objective of CCPOQ is to improve inter-agency coordination at the programme and operational levels in identified areas of science and technology, while the work of IACSD would be closely linked to sustainable development and the implementation of Agenda 21. It is expected that from these different angles, IACSD and CCPOQ would promote coordinated approaches and identify areas of concentration for inter-agency cooperation in the future.

B. Specific measures for inter-agency coordination

11. In response to the agreed conclusions, United Nations agencies have designated focal points for science and technology for development (see annex I). The focal points met informally during the second session of the Commission on Science and Technology for Development in May 1995 and agreed on maintaining contacts on a regular basis. The focal points can facilitate closer interaction and cooperation on all matters related to science and technology for development without resorting to formal inter-agency mechanisms.

12. As for joint units, they currently exist, mainly at the headquarters of regional commissions, such as:

ECA/FAO Agriculture Division;

ECE/FAO Agricultural and Timber Division;

ECLAC/UNCHS Unit on Human Settlements;

ECLAC/UNIDO Industrial and Technological Unit;

ECLAC/UNCTAD Unit on Transnational Corporations and Foreign Investment;

ESCWA/FAO Agriculture Division;

ESCWA/UNESCO Unit for Science and Technology Statistics (in discussion);

ESCAP/UNCTAD (Transnational Corporations) Unit.

The existence of joint units has intensified practical collaboration in joint programming and execution of activities in sectors of mutual interest to the organizations concerned. There have also been substantive as well as financial benefits. Joint units place the work of specialized agencies within a framework of development at the national and/or regional levels, while putting the regional commissions in a more concrete touch with the field and with sectoral issues. ECLAC believes that this helps generate a critical mass in those areas where each institution by itself would be lacking.

13. A serious problem, however, is that the budget reductions in the specialized agencies have sharply reduced support in the field, whether in personnel, consultancies or field research. This has negatively affected the work of the joint units and that of the regional commissions themselves. Following the FAO decision to withdraw resources from the regional commissions in order to strengthen FAO regional structures, some of the joint units between FAO and the regional commissions are being phased out.

14. The United Nations medium-term plans for the periods 1980-1983 and 1984-1989 contained a coordinated chapter on science and technology, reflecting science and technology programmes of UNCTAD, the regional commissions and the United Nations Secretariat. Although the presentation of the medium-term plans and programme budgets have since been more decentralized, the regional commissions in particular take into account programmes of other United Nations entities in programming their own activities in science and technology for development.

C. Communications networks

15. In 1994 the Council proposed the design and implementation of a computer-based field-user-oriented communications network and other regular means of communication, on the basis of existing networks and capacities and without duplication within the United Nations system, to link units and projects oriented towards issues of science and technology. It also suggested that the networks should be developed in conjunction with other information networks being developed, such as the Sustainable Development Network of UNDP and Earthwatch.

16. The purpose of Earthwatch is to provide environmental and socio-economic information for national and international decision-making and for early warning of emerging problems requiring international action. An Earthwatch Working Party, comprised of all the concerned organizations of the United Nations system, has been organized by the United Nations Environment Programme (UNEP) to support the revitalization of Earthwatch and to facilitate decision-making.

17. It is felt that many functions of Earthwatch can be carried out by ad hoc groups of experts drawn from various United Nations agencies. The aim is to achieve maximum joint programming, collaboration and cooperation within available resources. The experience acquired in the Global Resources Information Database (GRID) in the handling and integration of large environmental data sets is being shared in order to make better use of the large quantities of environmental information already available.

18. Within the context of the follow-up to the United Nations Conference on Environment and Development, there is a parallel effort to establish a "Development Watch", to be built on existing data, to assist decision makers to understand the interaction between physical (environmental), social and economic phenomena and the policy options those interactions suggest. Whereas Earthwatch is primarily a global information system, "Development Watch" would be based on national information systems. Earthwatch would eventually serve as a feeder of information into "Development Watch", and the two systems would be coordinated. At present, both systems, including the revitalized form of Earthwatch, are at an early stage of development and coordination. Efforts will be made to incorporate aspects of science and technology relevant to those systems in them as they evolve.

19. The Sustainable Development Network managed by UNDP seeks to facilitate connectivity between the users and providers of information relevant to sustainable human development in programme countries. Activities relevant to science and technology would fall within this rubric. User groups at different national or regional locations are free to form their own conferences or networks both within country and through computer-mediated communications with other parties in other countries. The number of operational national Network programmes should reach about 30 by end 1995.

20. Although some initiatives have been undertaken, as mentioned above, a lot of work remains to be done in implementing a system-wide computer-based field-user-oriented communications network. It is recommended that various agencies, focal points and organizations of the system concerned with science and

technology should periodically evaluate and report to the Commission on Science and Technology for Development and to the Commission on Sustainable Development, as appropriate, on the development of their information services in the different regions of the world and on action taken to make their information systems more accessible to potential users in the developing regions.

D. Regional and country-level coordination

21. The status and functions of regional and subregional structures differ widely among the organizations of the United Nations system. While the most important factor is undoubtedly political, technical considerations, including homogeneity or commonality of sectoral needs and problems and clear recognition of the needs and feasibility of cooperation among the member States, were also part of the rationale for most regional arrangements.

22. CCPOQ has an ongoing Working Group on the Resident Coordinator System. The responsibility of the resident coordinator is to promote a multidisciplinary dimension in sectoral development assistance, taking fully into account the sectoral requirements of the countries concerned and in light of the priorities established by the competent national authorities. This function is to be seen as supporting the sectoral responsibilities and contributions of individual agencies. Agency representatives are to act as technical advisers in their respective fields to the resident coordinator in the exercise of his/her functions. With the help of such technical advisers, the resident coordinators could develop coherent science and technology thematic sub-groups through the country strategy notes reviewed by CCPOQ or the country programming carried out by UNDP field offices for five-year cycles.

23. While UNDP resident coordinators have primary responsibility for coordination including coordination in the areas of science and technology at the national level, the regional commissions might be well placed to coordinate activities at the regional level, given their established contacts and networks in the respective regions.

24. In order to create an interregional network of different regional science and technology institutions, sponsored by the regional commissions in their respective regions, proactive linkages should be established among those institutions in support of expanded South/South cooperation.

25. As is shown in annex III (F), there are many cases of joint research and operational cooperation at the field level. This is due not just to reasons of economy but also to the recognized advantages of multidisciplinary and programme approaches and of pooled, complementary expertise. It has proven more effective to coordinate national and regional initiatives tailored to deal with scientific and technological capacity-building in relation to specific problem areas - e.g., water management, industrial pollution, desertification. Such focused activities, however, would not obviate the need for coordinated efforts directed at generic policy issues of capacity-building in science and technology.

26. Capacity-building in science and technology, as in other areas, is now widely accepted as the focus of technical assistance activities at the country

and regional levels. National execution or strong local components of development projects are, in some cases, replacing the traditional use of foreign personnel and straight-forward project execution by United Nations agencies. Also stressed is the participatory approach of involving all the stakeholders, including various major groups such as women and minorities, at the grass-roots level in both planning and implementing activities, in accordance with national priorities. The importance of cooperation with non-governmental organizations has also been emphasized in this regard. Scientific and technological factors as well as capacity-building are considered means of implementing Agenda 21. The primary goal of UNDP's Capacity 21 programme is to strengthen the capacity at the country level for making decisions regarding sustainable development. The activities of the United Nations agencies since the United Nations Conference on Environment and Development have been reoriented to meet those new challenges.

27. Two recent regional intergovernmental initiatives were highlighted by the Commission on Sustainable Development as specifically dedicated to supporting science for sustainable development in developing countries and to sensitizing governmental decision makers at the highest level to that need. One was the establishment in 1994 of the Commission on Science and Technology for the South (COMSATS), aiming at creating 20 centres of excellence in the South in the frontier areas of science related to sustainable development, and the related Network of International Centres of Excellence in the South. The second initiative was the Presidential Forum on the Management of Science and Technology for Development in Africa which, inter alia, led to the inauguration of the African Foundation for Research and Development (AFRAND).

E. Coalition of resources/round tables

28. In response to Economic and Social Council resolution 1993/73 and General Assembly resolution 48/179, a Consultative Meeting on a Coalition of Resources for Science and Technology for Development was convened on 1 December 1994. The participants included not only the United Nations agencies and interested delegates but also representatives of bilateral donors, intergovernmental organizations and private foundations and other non-governmental organizations.

29. The Consultative Meeting recommended that, instead of a single coalition, there should be multiple coalitions focused on specific themes and common goals among donors and recipients. They should be based on voluntary and informal mechanisms which promote the full interaction of both donors and recipients. It was also suggested that the feasibility of building science and technology into existing and broader coordination schemes be considered.

30. At the national level, the Consultative Meeting recommended that coalitions should be based on continuing policy dialogues with a wide range of stakeholders, including the private sector and the public at the grass-roots level. Existing institutions, such as the national planning authorities on the government side and UNDP resident coordinators on the United Nations-system side, could act as facilitators for the coalitions.

31. UNDP's Capacity 21 programme provides a concrete example of efforts to organize a coalition of resources in the form of stakeholder round tables. The programme aims at assisting selected countries in incorporating sustainable development into their development policies and integrating development planning with environmental issues. It addresses the specific goals of Agenda 21, including areas related to science and technology for sustainable development. In achieving the objective of the Capacity 21 programme, the round-table approach is applied. It provides a forum where all sectors of society can discuss sustainable development issues and decide on priorities on the basis of consensus-building. Capacity 21 also assists countries in the implementation of national and regional seminars and workshops, to help them tackle specific problems and issues of development and environment.

III. AREAS OF FOCUS FOR INDIVIDUAL AGENCIES AND INTER-AGENCY COOPERATION

32. In the agreed conclusions the Economic and Social Council suggested a few specific areas of concentration for agency activities in science and technology for development. These included capacity-building in research and development and commercialization of research and development results; facilitating South/South technology transfer and cooperation; developing a catalogue of proved technologies; and implementing field-user-oriented communications networks. The information on some of the latest activities of individual United Nations agencies in these areas are summarized in annex II.

33. The recent trend illustrated by the tables in annex II shows more emphasis on a participatory approach through involvement of local people in programme and project planning and execution; promotion of partnerships and networking for strengthening South/South cooperation; and efforts to build on existing information systems and networks. As for developing catalogues of proved technologies, more work is needed.

34. Some of the areas suggested by the Economic and Social Council for inter-agency cooperation included capacity-building in technical assessment, forecasting and monitoring; joint research and operational activities; conducting comprehensive policy studies; and taking a programme approach and promoting national execution. Annex III tables contain examples in the first two areas.

35. It would be important for the various agencies, focal points and organizations of the system concerned with science and technology, within their respective sectors of competence, to make more systematic use of existing science and technology experience, institutions, projects and other appropriate facilities as entry points for expanded cooperation between countries, organizations and enterprises of different developing regions, using various approaches such as networking or twinning.

36. The programme approach taken by many major United Nations agencies has been very effective in promoting inter-agency coordination on specific themes or subject areas. Examples of successful programmes are many and the list below is simply illustrative:

(a) The farmer-centred Agricultural Resource Management (FARM) Programme was launched in Asia with an overall objective of improved conservation, management and utilization of natural agricultural resources in rainfed lowlands and uplands (FAO/UNDP/UNIDO);

(b) The Programme of Research, Development and Research Training in Human Reproduction, with the operational components of global research and development, generates the technologies and information needed to improve reproductive health, and resources to strengthen research capabilities in developing countries (UNFPA/WHO);

(c) The World Climate Programme promotes better understanding of climate processes through internationally coordinated research and the monitoring of climate variations. The research component of the Programme is the joint responsibility of WMO and the International Council of Scientific Unions, with the active participation of the Intergovernmental Oceanographic Commission of UNESCO; the Climate Impact Assessment and Response Strategies component is coordinated by UNEP;

(d) UNDP's Capacity 21 Programme has the objective of creating a body of expertise in sustainable development and capacity-building that will be of continued value to developing countries, UNDP, specialized agencies, non-governmental organizations and donors. In the context of this Programme, UNDP is cooperating closely with the specialized agencies concerned at the global level in policy discussions and at the national level in coordinating implementation;

(e) The Household Food Security and Nutrition Programme promotes application of improved staple crop production techniques in Africa (UNICEF, IFAD, FAO, UNIFEM, WFP and the International Institute of Tropical Agriculture);

(f) The International Programme on Chemical Safety developed codes of practice for the prevention of major industrial accidents and safety in the use of chemicals at work (UNEP/ILO/WHO);

(g) The University/Industry/Science Partnership (UNISPAR) programme (UNESCO, UNIDO) promotes cooperation between universities, research institutions and industry.

IV. HIGH TECHNOLOGY/RESEARCH CENTRES AND REGIONAL CENTRES

37. The Economic and Social Council suggested that the role of the highly specialized and high technology centres of UNIDO, UNEP and United Nations University (UNU), among others - in particular, their contribution to United Nations policy-making bodies - should be further explored. The Commission on Sustainable Development, at its second session, recognized the need to promote closer interaction between technology transfer and cooperation and networking of institutional capacities. It was considered of crucial importance to strengthen institutional networks at the country level, including environmental technology centres, and to promote the development, transfer and adaptation of environmentally sound technologies. Annex IV provides information on the high

technology centres of UNEP, UNIDO and UNU. Some of these centres are rather new, and their functions are evolving with time and experience.

38. One of the relevant areas for promoting both North/South and South/South technology cooperation and partnership outlined by the Commission on Sustainable Development at its third session was to strengthen existing regional centres that play a role in the exchange of information about environmentally sound technologies and in the capacity-building of developing countries and economies in transition for managing technological change.

39. The Round Table on Technology Transfer, Cooperation and Capacity-Building for Sustainable Development, convened by UNIDO in February 1995, made some concrete recommendations regarding environmentally sound technology centres. It recommended that the centres should undertake such functions as the training of trainers and advisers; using demonstration projects to highlight the economic and environmental benefits of the use of environmentally sound technologies and management skills; building awareness through, inter alia, the dissemination of case-studies; capacity-building for technology assessment; and developing policy recommendations for decision makers.

40. The Round Table also suggested that the UNIDO/UNEP initiative on cleaner production centres could benefit from the involvement of such agencies as UNDP and UNESCO in capacity-building activities. It was also recommended that the UNDP International Environmental Technology Centre's priority activities must be fully integrated into related actions of other United Nations organizations.

41. Preparatory work has been done by UNIDO for the revitalization and networking of existing industrial technology research institutes in Asia, Africa and in the Arab region. The programme aims at helping such centres become more effective in commercializing research results. This includes environmentally sound technologies, networking with other innovations system agents and foreign research and development centres, and redefining their role.

42. Continuous support is needed for developing and strengthening regional networks of research centres such as the African Regional Centre for Technology, the African Ministerial Conference on the Environment, or regional technology centres like the Asian and Pacific Centre for Transfer of Technology of ESCAP, which acts as a brokering agency to disseminate and exchange information, carry out technology policy studies and facilitate technology cooperation between member countries.

V. CONCLUSIONS

43. The agreed conclusions of the Economic and Social Council on coordinating science and technology for development have had an impact in renewing consideration of science and technology issues within the United Nations system. The designation of science and technology focal points by most agencies should provide an effective, if informal, network for facilitating information exchange and programme coordination. Both IACSD and CCPOQ are seriously considering how to better address science and technology coordination issues at the international and field levels. While it is still too early to see large shifts

in programme emphasis, agencies are clearly more aware of the science and technology components of sustainable development and field level programmes.

44. In the light of the evolving nature of these developments, it is recommended that the Economic and Social Council further review progress within five years.

Notes

1/ See A/49/3/Rev.1, chap. III.

2/ Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8), resolution 1, annex II.

3/ Report of the United Nations Conference on Science and Technology for Development, Vienna, 20-31 August 1979 (United Nations publication, Sales No. E.79.1.21 and corrigenda), chap. VII.

Annex I

SCIENCE AND TECHNOLOGY FOCAL POINTS

Sustainable Development Officer
Division for Sustainable Development
Department for Policy Coordination
and Sustainable Development (DPCSD)

Senior Adviser
Environment Programme Division
United Nations Children's Fund
(UNICEF)

Deputy to the Director
Office for Outer Space Affairs
United Nations Office at Vienna

Senior Technical Officer
United Nations Population Fund
(UNFPA)

Director
Industry and Technology Division
Economic Commission for Europe (ECE)

Director
Industry and Technology Division
Economic and Social Commission for
Asia and the Pacific (ESCAP)

Director
Division of Production, Productivity
and Management
Economic Commission for Latin America
(ECLAC)

Chief of Science and Technology
Section
Economic Commission for Africa (ECA)

Chief, Technology Section and
Officer-in-Charge
Sectoral Issues and Policies Division
Economic and Social Commission for
Western Asia (ESCWA)

Officer-in-Charge
Division for Science and Technology
United Nations Conference on Trade
and Development (UNCTAD)

Director, Technology Service
Investment and Technology
Promotion Division
United Nations Industrial Development
Organization (UNIDO)

Deputy Director, DEP
United Nations Environment Programme
(UNEP)

Chief, Building and Infrastructure
Technology Section
United Nations Centre for Human
Settlements (Habitat)

Deputy Director, UNFSTD/STAPSD
United Nations Development Programme
(UNDP)

Employment Strategies and Policies
Branch
International Labour Organization
(ILO)

Director, Research, Extension and
Training Division
Food and Agriculture Organization of
the United Nations (FAO)

Chief
Cooperation for Development Unit
(Science Sector)
United Nations Educational,
Scientific and Cultural
Organization (UNESCO)

Director, Office of Research,
Policy and Strategy Coordination
World Health Organization (WHO)

Alternate: Office of Research
Policy and Strategy Coordination

Senior Adviser, Industry and Energy
Department
World Bank

Chief, Regional Affairs Office
International Civil Aviation
Organization (ICAO)

Head
LDCs and International Organizations
International Telecommunication Union
(ITU)

Director of the Technical Cooperation
Department
World Meteorological Organization
(WMO)

Chief
Office for the London Convention 1972
Marine Environment Division
International Maritime Organization
(IMO)

Head, Development Cooperation
Programme and Planning Section
World Intellectual Property
Organization (WIPO)

Director
Technical Division
International Fund for Agricultural
Development (IFAD)

Governmental and Inter-Agency Affairs
Section
Division of External Relations
International Atomic Energy Agency
(IAEA)

Director, External Relations Division
World Trade Organization (WTO)

Annex II

AREAS OF FOCUS IN PROMOTING SCIENCE AND TECHNOLOGY FOR DEVELOPMENT

A. Capacity building in R & D and commercialization of R & D results (para. 20 of ECOSOC agreed conclusions/1994/1)

Agency	Capacity building in R & D
UNICEF	UNICEF's water and sanitation activities have always fostered national capabilities in development of new technologies or improvement of existing ones.
ECLAC	ECLAC/UNDP Regional Project on Innovation and Competitiveness - has assisted a number of countries in the region to design policies and programmes in science, technology and industries aimed at enhancing competitiveness. This project also enhanced contacts between business chambers and officials of different countries concerned.
UN Office for Outer Space Affairs	Provides various training courses and fellowships whose beneficiaries have become active in user groups, national space applications programmes, national committees, space data interpretation centres and receiving stations.
ECA	Through seminars, publications and advisory services to member states, promotes the concept that universities and research institutes should involve the entrepreneurs and industrialists and help them to apply local and foreign technologies to improve production and raise living standards.
ESCWA/UNIDO	Workshop on Revitalization of Research and Development in the ESCWA Region (June 1995) would focus on science and technology capacity building and the transfer of R&D results to production and service activities and deal with the management of R&D activities in areas related to immediate and pressing needs of the region's countries.
UNCTAD	Organized a Panel of experts on this subject as part of CSTD activities (October 1994); organized interregional workshops which examined policies and measures aimed at more effective use of the R&D potential by enterprises in developing countries. Examples included: (a) The Latin American Workshop of Experts and Coordination on University and Enterprise in a New Competitive Scenario with the support of UNDP/ICDC, March 1993; (b) The Asian Regional Workshop on R&D Community-Enterprise Cooperation in Technological Research and Commercialization/Application of Results (in cooperation with the Asian and Pacific Centre for Transfer of Technology and with the support of UNDP/TCDC, November 1994).

Agency	Capacity building in R & D
UNIDO	Has established or strengthened over 150 industrial and technological research institutes in developing countries, both at a specialized sectoral level and general industrial R&D. Developed guidelines for the revitalization of industrial and technological research institutes in developing countries.
UNCHS (Habitat)	The centre supports capacity-building efforts at local and national levels through a number of pilot-scale demonstration projects.
ILO	Identification, dissemination and commercialization of new innovative technologies generated and adapted by local R + D to create employment opportunities in non-traditional activities in Bangladesh, Ghana and Lesotho. Joint planning and execution of pilot technology projects for employment promotion and women's empowerment with national implementation, training and R + D institutions in selected developing countries.
UNESCO	Activities include education and training, policy advice, support for specialized institutions and research programmes, maintenance of national scientific and technical communities, and international co-operation between national communities. A major focus in this field is national scientific capacity-building related to environment and sustainable development.
WHO	Tropical Diseases: Institutional capacity strengthening in operational research on malaria, schistosomiasis, leishmaniasis and other tropical diseases. Diarrhoeal diseases: In-service training of physicians, instructional material on diarrhoeal diseases for use in medical schools. Encourages the mobilization of national support from several ministries concerned and governmental agencies and other sectors such as education, science and technology, and planning, in order to deal with the multisectoral scope of health research. Ensures that national health research programmes are supported by epidemiology, laboratory research, policy analysis and research, information and social sciences.

Agency	Capacity building in R & D
ITU	has helped create institutions of higher learning at regional and national level, some of which had the capacity to undertake R & D activities. Examples include: the African Advanced level Telecommunication Institute (Nairobi) and the Ecole Supéreme Multinationale des Télécommunications (Dakar). In addition, Test and Repair Centres were established in some countries to enable maintenance of complex equipment in developing countries.
WIPO	Focuses on the promotion of respect for, and protection of, intellectual property rights (IPR) worldwide (including the IPRs on inventions technology and R&D results). Promotes awareness, among R&D institutions and the private sector in developing countries, of the role of the IP System in R&D activities, transfer of technology, commercialization of R&D results, and the use of modern technology in the dissemination of patent information.

B. Facilitating South-south technology transfer and cooperation (para. 21)

Agency	South-south technology transfer and cooperation
Office for Outer Space Affairs	Assists a number of countries that are within the coverage area of the Cotopaxi ground-receiving station, to cooperate in terms of the acquisition and delivery of data to the countries concerned.
UNFPA	"Partners in Population and Development: a South-South Initiative" promotes sharing of experiences, south-south collaboration and fund raising among countries which pursue follow-up to 1992 Non Aligned Movements. - also pursuing a support programme to 4 "Centres of Excellence" in four selected developing countries to provide assistance in population policies to other developing countries.
ESCAP	Adopted the Action Programme for Regional Economic Cooperation in Investment-related Technology Transfer (April 1994) aimed at enhancing technology flows to the region and among countries in the region.
ECLAC	ECLAC/ALABIC project on Policy Instruments to Develop the Capital-Goods Industry in Latin America implemented centers to link supply and demand of capital goods in several countries in the region.
ECA	Promotes such transfer and cooperation through study tours and inter-regional seminars, with the participation of researchers, entrepreneurs and bankers. Advises member states on the implementation of the Science and Technology Protocol of the African Economic Community for regional integration.
ESCWA	is setting up a regional training network aimed specifically at disseminating methodologies for cooperation in the field of water resource assessment, conservation and management.

Agency	South-south technology transfer and cooperation
UNIDO	- Organizes TCDC workshops and study tours to promote industrial cooperation, technical cooperation and training, joint ventures and enterprise-to-enterprise or institute-to-enterprise cooperation arrangements. - Implements the IDDA Technology for Development Programme, a regional programme for the development of technological capabilities in selected African countries. - Prepares technology opportunities compendiums and organizes technology markets (Techmarts) in developing countries for promotion of technology flows and technology exchanges and partnerships.
UNEP	Focus on strengthening partnerships and the development of networks of national and international institutions to mobilize multi-disciplinary expertise and bridge global and local concerns; provided numerous forums for regional information and consultations to develop regional common views and positions; conducts research on and demonstration projects to assess potential barriers hindering technology transfer and consideration of modalities for the promotion of technology transfer. Specific initiatives of TCDC: - Establishment of national focal points for TCDT in health (in preparation) - Caribbean Cooperation in Health initiative (supported) - Technical cooperation in Pharmaceuticals among Asean countries through Regional Offices of Research Policy and Strategy Coordination or Research Promotion and Development programmes, Regional Advisory Committees on Health Research (RACHR); at the country level: through national Medical Research Councils and analogous bodies.This includes technology assessment and transfer process, training and research cooperation; study tours, fellowships, local training, research protocols, and institutional support.
UNCHS (Habitat)	The centre documents and disseminates information on small-scale municipal waste recycling technology in the Asian and African regions; has established a network of African countries for the transfer of appropriate technologies and capacity-building in the region.

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Agency	South-south technology transfer and cooperation
ILO	Transfer and exchange of experiences from ILO pilot projects on technologies for basic needs among developing countries in Asia and Africa. Established a code of practice on safety, health and working conditions in the transfer of technology to developing countries Facilitated the collection and exchange of appropriate farm equipment technology designs among developing countries. Organized exchange visits between entrepreneurs on the basis of which the lessons and potential in Kenya were documented.
FAO	FAO supports many activities covering intercountry training, exchange of expertise, technology transfer and networking in the field of agriculture, fisheries, forestry, nutrition and rural development. Some 100 networks in the four regions are supported by FAO. It provides support to regional establishments of science and technology. 52 member countries have confirmed their commitment to the FAO's scheme of Technical Cooperation between Developing Countries (TCDC).
UNESCO	World Solar Summit Process - a campaign which aims at developing and deploying all renewable energy technologies. In cooperation with UNU and the Third World Academy of Sciences, UNESCO is running a joint programme entitled "The South-South Cooperation Programme on Environmentally Sound Socio-Economic Development in the Humid Tropics." Promotes co-operation between developing countries and economies in transition on an ad-hoc basis.
WHO	Designates as WHO collaboration centres a number of institutions in the developing world which have design and fabrication experience in medical equipment and instruments. These centres have a task of carrying out problem-oriented research and advice on the development and evaluation of equipment and on equipment design, and a task of producing at low volume for equipment evaluation.

Agency	South-south technology transfer and cooperation
ITU	Priorities in its TCDC activities are: (i) promotion or creation of national and sub-regional maintenance and repair centres in order to support and improve the operation and maintenance of telecommunication networks; (ii) conducting a study/project on a clear identification of the telecommunication materials and equipment for possible production in developing countries; (iii) support for multinational/regional training centres in order to give them a more central role to play in coordinating programmes of different national training centres, preparation of programme exchange between centres in the region, etc.
WMO	Some developing country members of the Hydrological Operational Multipurpose System (HOMS) contribute to south-south technology transfer. HOMS provide indispensable source of technology required for environmentally sound and sustainable development of water resources.
WIPO	Assists developing countries by improving the efficiency of their IP offices and by encouraging the cooperation and exchange of information among IP offices, thus creating the necessary conditions for facilitating access of users in developing countries to technological, legal and commercial information contained in patent documents.

C. Developing a catalogue of proved technologies (para. 22)

Agency	Developing a catalogue of proved technologies
UNICEF	Introduces low-cost, appropriate technologies for water pumping, water decontamination in different countries often involving intensive community participation.
ECA	Supports the idea (no activity yet) and thinks it should be supplemented by technology assessment seminars.
ESCWA	Activities planned on environmentally sound technologies (ESTs) for the next biennium aim at producing information for a catalogue of proven (ESTs) in specific fields of industry.
UNIDO	How to Start Manufacturing Industries series consist of profiles giving brief descriptions of manufacturing processes, machinery and equipment, as well as labor, investment and production cost factors. 400 profiles have been published to date and a similar number in the pipeline. Techmart Compendiums of Technology offers and Partnership Opportunities also provides an instrument for choice of technology. The Environmental Technology Monitor series provides a current awareness service on industrial technological developments in this sector, as well as news on related activities, regulations and profiles of industrial processes and equipment..
UNCHS (Habitat)	Disseminates information on proven environmentally sound technologies, including small-scale, energy-efficient technology for the production of building materials; renewable energy technologies for use in human settlements; and technology for recycling of municipal waste.
ILO	Inventories of technologies compiled by the ILO offers a wide range of technology options for developing countries comprehensively taking into account employment, working conditions, occupational safety and health and gender and environmental considerations. Areas covered by such inventories include agriculture and food processing, data processing, stress prevention, biotechnologies and information technologies, etc.

Agency	Developing a catalogue of proved technologies
FAO	Technical divisions of FAO have developed and assisted in the development of thousands of proven technologies with well documented stories of success.
UNESCO	Promotes cooperation between specialists in the same disciplines through international programmes, which facilitate the exchange of knowledge.
WHO	Vaccines: Recommended immunization policy in developing countries for infants with the following vaccines: BCG, DPT, ODV (oral diphtheria vaccine), measles, hepatitis B and yellow fever. Developed list of essential 200 drugs: The evaluation, monitoring, supply, national policies development, training, advocacy etc. is managed by the WHO Action Programme on Essential Drugs. Jointly with relevant medical professional associations: Addressed the suitability of a simplified modern technology for district hospitals, and other health service institutions in developing countries. Manuals and instruction handbooks on use of appropriate health technology were published.
ITU	Regional and worldwide telecommunications Exhibitions organized by ITU help give publicity to the telecommunication equipment produced by some developing countries of comparable quality as the developed countries.

D. **Implementing field-user oriented communications networks**

Agency	Communication networks
Office for Outer Space Affairs	Asia-Pacific satellite Communications Council (APSCC) was established in October 1994 to promote the exchange of views and ideas on all aspects of satellite communications technology, to accelerate the introduction of telecommunications services via satellites in Asia and the Pacific, to assist in the development of national satellite communications capabilities and to harmonize telecommunications services within the region. Regional Centres for Space Science and Technology Education will have direct access to the Mercure satellite-based telecommunications network proposed By European Space Agency and European industry.It would provide global communication capability for the transfer of environmental data between different UNEP/GRID centres and between data bases and archives and users of environmental data.
ESCAP	Project entitled "Mechanisms for Exchange of Technology Information (METI) implemented by APCT is aimed at creating a self-sustainable regional networks facilitating small and medium scale industries to access quality information on technology opportunities.
ECLAC	implemented a network on competitiveness policies and industrial restructuring that links researchers in this field in most of the Latin American countries.
ECA	Suggests any set information networks should be linked with existing networks like ARCTIS, SASTIN, PADIS in the African region, E-mail facilities are becoming popular.

Agency	Communication networks
UNIDO	-Biosafety Information Network and Advisory Service (BINAS) provides advice on the formulation of biotechnology regulations; strengthens institutional capability in biotechnology; and provides industrial service. -INTIB's Energy and Environment Information System (EEIS) addresses the imbalance of generated and stored industrial and technological information, and provides access to sources of information on environmental and technological developments.
UNCHS (Habitat)	The centre is developing a computerized data bank on environmentally sound technologies for use in human settlements which is planned to be linked to other existing networks such as International Cleaner Production Information Clearinghouse (ICPIC) of UNEP-IE.
UNDP	Manages the Sustainable Development Network (SDN) whose objective is to facilitate connectivity between the users and providers of information relevant to Sustainable Human Development in programme countries.
FAO	In collaboration with UNIDO, a bioinformatics network is being established in Asia. This network will develop data bases on appropriate biotechnologies as assessed through the regional programme, bio-patenting, biosafety, etc.; it will also assist national capacity building through establishing/strengthening infrastructures and training. Adjustments/modifications are being introduced to existing information systems like AGRIS (International Information System for the Agricultural Science and Technology) and CARIS (Current Agricultural Research Information Systems) to collect, collate, retrieve and disseminate information on environmental, genetic resources, biotechnology, biocontrol agents and biopesticides and safe and efficient use of pesticides.
ILO	ILO technological information system (INSTEAD) extends technological, marketing and other information essential for the survival and competitiveness of informal sector enterprises, making greater use of decentralized communication networking arrangements with the help of ILO field structures, including the ILO regional multidisciplinary teams.

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Agency	Communication networks
UNESCO	Promotes the connectability of scientists and engineers in all countries to Internet; UNESCO's field offices are already connected to Internet through HQ by a SITA link. Established a special advisory group on computer-based communication network(s) for S&T actors and electronic publishing of scientific research. Provides advice to the national scientific communities on how to get connected to Internet. A mission on that subject was fielded to Jordan in December 1994. UNESCO-MAB provides training in connection with the establishment of an electronic communication system for coordinated research and monitoring on biodiversity.
WHO	Advisory Committee on Health Research (ACHR) fosters a global communication system for WHO research infrastructure. Closer interregional cooperation in the use of the global communication system is supported.
ITU	Working with UNESCO to establish a computer network in Africa and the Caribbean for the promotion of science and technology and for information exchange and other application.
WMO	Many regional tropical cyclone bodies now have Tropical Cyclone Workstations based on personal computers designed for assisting forecasters in the preparation of better forecasts and issuance of timely early warnings. Tropical Cyclone Programme (TCP) will participate in a global network within the framework of the International Decade for Natural Disaster Reduction for the dissemination of information on natural disasters.
WIPO	Promotes the use of CD-ROM products containihg patent information by IP offices in developing countries for providing information services to national information users (industry, R&D sector).

Annex III

ILLUSTRATIVE AREAS FOR INTER-AGENCY COOPERATION

E. Capacity-building in technical assessment, forecasting and monitoring (para. 17)

Agency	Capacity-building in technical assessment
Office for Outer Space Affairs together with European Space Agency	Training Course on the Use of ERS-1 data in Remote Sensing applications held in 1993 for the francophone African region and in 1994 for the Latin American and Caribbean region...considered application of the technology to many existing projects of a wide variety of areas including desertification and land degradation, food production, water resources management, cartography, natural resources inventories, environmental impact assessment studies, meteorology, etc.
UNFPA/PATH	Assist countries in assessing options for local production of safe, effective and acceptable contraceptive products; introducing new contraceptives and other reproductive health technologies; and ensuring the use of appropriate support materials and counselling strategies for new contraceptive products.
ECA/DPCD	Organized a regional training seminar on methodologies for the assessment of environmentally sound technologies in Kampala in September 1993.
ESCWA/UNIDO	Joint project on Agricultural and Agro-Industrial Applications of Specific Biotechnologies - contacts have been made with institutions in the region for cooperation in research on agriculture under saline and arid conditions. An expert-group meeting on techno-economic aspects of the commercialization of new materials technologies in the ESCWA region, with particular reference to application of new materials technologies related to sustainable development objectives.
UNCTAD/ESCAP	UNCTAD provided assistance to APCTT to carry out national training workshops on technology assessment.
UNCTAD/IATAFI *	Organized the First International Conference for Technology Assessment and Forecasting Institutions (IATAFI 1994) in May 1994.

* An NGO established under the auspices of the UN.

Agency	Capacity-building in technical assessment
UNCTAD in consultations with UNESCO, UNIDO, UNU and others	Produces ATAS Bulletin - No. 10 to be published in Fall 1995 will be on "Information Technologies for Developing Countries".
UNIDO in consultation with others	-Publishes Technology Monitors on advances in materials technology; high-technology spin-offs; genetic engineering and biotechnology; microelectronics; environmental technology; marine industrial technology; and technology management. -Prepares Science and Technology Policy Reviews -Organized meeting on cooperation in technology monitoring in developing countries. -Prepared Manual on Technology Transfer Negotiations.
ILO with others	ILO's cooperation focused on employment creation, worker protection and skills development. Interagency practical collaboration needs to be extended to field-level activities particularly through the ILO's network of regional multidisciplinary teams in order to further strengthen capacity building in technology assessment, forecasting and monitoring.
ILO/FAO/UNESCO	Inter-Secretariat Working Group on Agricultural Education, Science and Training to facilitate interagency exchange of information and the identification of flexible training methodologies and instructional technologies which increase the responsiveness and efficiency of training systems.
FAO/UNDP/UNIDO	Developed indicators for ex ante and ex post assessment of technologies and conducting pilot tests. Interdisciplinary teams at national and regional levels are monitoring the efficiency of the indicators under the FARM (Farmer-centered Agricultural Reserve Management).
UNESCO	Gives emphasis to strengthening capacities in technology assessment and monitoring discipline. UNESCO-Cousteau Ecotechnie Chairs support environment-related interdisciplinary training, including in technology, in universities and research centres in the North and in the South.
WMO/IAEA/WHO/FAO/DHA	International arrangements for early notification of nuclear accidents - assist countries in the assessment of potential danger or damage in the aftermath of such accidents.

F. Joint research and operational activities (para. 18)

Agency	Joint research and operational activities
UNICEF/IFAD/FAO/UNIFEM/WB/Int'l' Inst. of Tropical Agriculture	Under the Household Food Security and Nutrition Programme in Africa, the application of improved staple crop varieties and production techniques was promoted. In Tanzania, Mozambique and Namibia, improvements in productivity of crops resulting from technological innovations have helped some household access to food throughout the year.
ECA/WMO	Collaboration in the area of Water Resources Assessment for Africa, and in the implementation of policies and strategies for water management.
ESCWA/UNIDO	Revitalization of R & D in the ESCWA region; Techno-Economic Aspects of the Commercialization of New Materials in the ESCWA Region - also aimed at promoting the establishment of a Regional Centre for Materials Science and Technology.
UNDP/WHO/World Bank/UNFPA	Special Programme of Research, Development and Research Training in Human Reproduction (HRP) - conducts global research and development to generate the technologies and information needed to improve reproductive health; and provide resources to strengthen research capabilities in developing countries.
ILO	Follow-up to the Ad Hoc Working Group on interrelationship between Investment and Technology Transfer. Disseminate insights obtained from the review of the UN System work dealing with investment-related technology issues. Employment strategy for science and technology manpower prepared under the auspices of UNESCO/NISTAD international seminar on STD in preparation for the World Summit for Social Development. UNDP/ILO comprehensive employment policy mission concerned with upgrading of technologies for sustainable livelihoods, technology adaptation in the informal sector and promotion of modern sector employment for women workers in Kenya.

Agency	Joint research and operational activities
FAO/WHO	Collaborating Centres for livestock disease that have a global network of 20 units, covering 29 diseases. They assist with diagnosis of diseases, preparation and distribution of diagnostic reagents and training of specialists.
FAO/IAEA	Project to eradicate the screw-work fly from North Africa.
FAO, Int'l Agricultural Research Centres (IARCs)	Collaboration in facilitating and further accelerating the process of technology identification and transfer.
UNESCO/UNIDO	Executed a S&T policy study in Zambia in 1994.
UNESCO/WMO/FAO	Cooperation in hydrology and oceanography.
UNESCO/FAO/UNEP	Cooperation in natural resources management.
UNESCO/UNIDO	Executing a working agreement in the areas of clean technologies and energy.
UNESCO/IAEA	Running International Centre for Theoretical Physics in Trieste, Italy; continuing cooperation in oceanography and hydrology.
WHO/UNICEF	Research on acute respiratory infections: Determining effective and feasible interventions for reducing morbidity from pneumonia. Design of an integrated approach to the management of the lethal scourges in children - pneumonia, diarrhea, malaria, measles and malnutrition. Oral Rehydration Therapy (ORT) - mobilized enormous efforts to promote this cost-effective scientific solution. Assistance is given to the expansion of the ORS production in developing countries and to promoting community-based ORT units in villages and poor urban areas.

Agency	Joint research and operational activities
WHO/UNFPA	Project Family Planning Technologies: Implications for Services, Training and Information - emphasizes the provision of technical, managerial and information guidance for improved management and quality of care for women in underserved rural communities.
WMO/ITU	Protection of radio frequency needs for meteorological and other environmental applications which, inter alia, aim at safeguarding operational meteorological instruments.

Annex IV

HIGHLY SPECIALIZED AND HIGH TECHNOLOGY CENTRES

Nat'l Cleaner Production Centres (NCPCs)	UNEP Int'l Environmental Technology Centre (IETC)	Int'l Agricultural Research Centres (IARCs)	Int'l Center for Genetic Engineering and Biotechnology (ICGEB)	Center for Application of Solar Energy (CASE)
UNEP (IE/PAC), in collaboration with UNIDO, has been engaged in the establishment of NCPCs in a number of developing countries and countries with economy in transition. Such centres would have the mandate of raising awareness and skills of government and industry managers, of promoting cooperation with other countries, and of launching local demonstration projects and research. 39 proposals have been received since 1992 and funding for three years for seven centres have been secured. It is expected that after three to five years, the centres should become self-sustaining.	Officially opened in April 1994, the Centre's main function is to facilitate the transfer of environmentally sound technologies (ESTs) to developing countries and countries with economies in transition, with specific attention to urban problems, such as sewage, air pollution, solid waste, noise, and to the management of freshwater lake and reservoir basins. The strategies of IETC is based on Agenda 21 and pursues a result-oriented work revolving around three issues, namely, (a) improving access to information on ESTs, (b) fostering technology cooperation, partnerships and transfer, and (c) building endogenous capacity.	The network of IARCs was created in 1972 under the co-sponsorship of the World Bank, UNDP and FAO to address the world food problem based on the belief that investments in scientific research would generate improved agricultural technologies, practices, and policies to enable developing countries to produce more food to satisfy the needs and requirements of their people. The system's major thrusts were productivity increase, poverty alleviation, and resource conservation in collaboration with National Agricultural Research Systems. At the Ministerial-level meeting of CGIAR held in Lucerne, Switzerland in February 1995, UNEP was invited to join the Co-sponsors Group.	Collaborative activities with UNIDO takes an integrated programme approach involving biosafety, technology transfer, investment strategies, and management, including development, acquisition and commercialization of biotechnology products, services and related industrial processes.	The Center was established through collaboration among UNIDO, the Government of Australia and the Government of Western Australia, and operates under the patronage of UNIDO. UNIDO is promoting similar centres in other parts of the world, e.g., South Africa, Morocco, India and China, so as to form a network of such centres.

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Int'l Center for Science and High Technology (ICS)	Int'l Center for Materials Evaluation Technology (ICMET)	Arab Center for Multidisciplinary Materials Research (ACMMR)	Int'l Center for Hydrogen Energy Technology (ICHET)	Int'l Center for Advancement of Manufacturing Technology (ICSMT)
The Center established in Trieste, Italy, under the auspices of UNIDO was reoriented to focus on applied high technology areas and on strengthening the capacity of national industry-related R&D institutions. ICS and UNIDO are currently developing new technology management programmes, including the creation and strengthening of high technology companies, marketing of hightech products and services and the assessment of national industrial and technological policies with a view to the promotion of technology-based industrial companies. UNESCO is expected to boost its role within the framework of ICS. Activities planned for 1995 include: a training workshop on "Marketing of high-technology products and services", Brazil in June, and training workshop on "Assessment of national S&T policies for the development of high-technology enterprises", Indonesia in December.	The feasibility study for the establishment of an International Centre for Materials Evaluation Technology has been completed and further promoted. A regional programme in support to the establishment of ICMET has been developed by UNIDO and will be funded through the Trust Fund Agreement with the Government of Republic of Korea which is expected to be signed in May-June 1995.	UNIDO has initiated the establishment of ACMMR, which will strengthen technological capacity of Arab countries in selected areas of new and emerging technologies. The feasibility study for the establishment of this Centre has been prepared by UNIDO and submitted to the Government of Syria for their consideration.	UNIDO carried out a feasibility study for the establishment of ICHET, financed by the Government of Turkey. A meeting is planned for 1995. ICHET will: operate under the auspices of UNIDO; respond to the demands from developing countries for energy services; promote and facilitate the introduction of hydrogen energy technologies in participating countries; and provide assistance in pilot projects.	UNIDO has carried out promotional work for the establishment of an ICAMT, which will strengthen the capabilities of developing countries to improve their manufacturing technologies. The Government of India will finance the preparatory activities for ICAMT.

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UNU Institute for New Technologies (UNU/INTECH)	UNU International Institute for Software Technology (UNU/IIST)	UNU Institute for Natural Resources in Africa (UNU/INRA)
UNU/INTECH carries out integrative policy-oriented research and training on the economic and social implications of new technologies for developing countries. Its primary focus is on selected new technologies, particularly in relation to developing countries; the economic and social implications of new technologies and desirable directions for the development of these technologies.	UNU/IIST concentrates on the development and adaptation of advanced computer software to meet the needs and strengthen the capabilities of developing countries in software technology.	UNU/INRA is designed to strengthen national institutions in Africa, help mobilize scientists and technologists throughout the continent, and provide them with the organizational framework and management capacity related to natural resources in the context of self-reliant development.

Annex V

REGIONAL TECHNOLOGY CENTRES/NETWORKS

Asian & Pacific Centre for Transfer of Technology (APCTT)	Regional Centres for Space Science and Technology Education	Networks of research centres in Africa	Regional Network for Agricultural Machinery (RNAM/ESCAP)	African Regional Centre for Technology
ESCAP through APCT has been implementing a project entitled "Mechanisms for Exchange of Technology Information" (METI) aiming at providing quality information on technology opportunities for small and medium scale industries. Activities so far consist of: (i) development of a special format to carry out a market survey on METI style information services among potential users; development and dissemination of a METI training manual; (ii) development of a low cost system enabling exchange of technology information between participants through computer communication system; (iii) development of computerized databases such as METI thesaurus and METI users manual. Under the second phase which started in 1994, it is envisaged that a self-sustainable regional network facilitating transfer of environmentally sound technologies among SMES will be established by the end of 1996.	The first Centre was established in Latin America and Caribbean in 1994 and preparations in other regions including in ESCAP region are under way. The principal functions of each Centre will focus on: (i) education, research and application programmes; (ii)data management; (iii) pilot projects; (iv) continuing education programmes through workshops and seminars; and (v) awareness programmes for policy decision-makers and the general public. The emphasis will be given to in-depth education, research and applications programmes in remote sensing technology, satellite meteorology and geographic information systems (GIS), communications, geo-positioning systems and atmospheric sciences as part of the essential tools for environmental monitoring and natural resources management indispensable for sustainable development.	Under the auspices of the African Ministerial Conference on the Environment (AMCEN), whose Secretariat is provided by UNEP, in close cooperation with ECA and OAU, the eight networks of research centres have been established and operational in order to develop and strengthen technical cooperation among African countries through the development of horizontal, scientific and technical links.	The focal points in the participating countries were strengthened to provide support to the local manufacturers of agricultural tools. These networks will be further strengthened to promote the manufacturer of prototypes.	The Centre assists governments, inter alia, in S&T policy formulation; maintaining information data banks on African research, techno-development institutions, and experts; providing on-line access on technology resource information; promoting the application of information technologies; promoting diffusion of mature technologies; strengthening technology institutions; promoting exchange of technical, managerial and research personnel; training in technology evaluation, assessment and transfer; organizing training programmes to enhance technological capacities; and assisting in identifying and adopting alternative sources of technology.